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WILLIAM JOHN BURCHELL, BOTANIST.

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INTRODUCTION.

After the departure of Thunberg from the Cape of Good Hope in 1775, the country was visited by several collectors and some dilettante botanists. Many of them were worthy and interesting men, and in the early days of the 19th century, there arrived one who has been spoken of as "the most painstaking and accurate of botanical travellers,"\* William John Burchell.

Though he possessed ultimately a herbarium of considerable size, he was not a mere collector, but rather an individualist, attaching himself to no particular "school" but carrying on careful scientific observations and recording them by means of notes and drawings made in the field and not in the museum. He worked in the period before the microscope and laboratory gave an intensive value to botany as a science.

He was a naturalist, observing Nature in many of her aspects, but it is his activity in the Botanical field which will now be considered, and this work falls easily into four divisions dealing:—firstly, with his youth and sojourn in St. Helena: secondly, with his South African journey: thirdly, with his Brazilian period: and fourthly, with the European period and his contact with other Botanists.

\* MacOwan: *President's address S.A. Phil. Soc., Trans.* 1866, Vol. 4, p. xlii, 1884-88.

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## PART I: BURCHELL IN ST. HELENA.

William John Burchell, born in 1781, was the eldest son of Matthew Burchell, who owned the Fulham Nursery, near London.

From Faulkner's *History of Fulham* published in 1813, we learn that the Fulham Nursery and Botanic Gardens had been established in the time of George I, and came into the hands of William Burchell and his nephew Matthew, in the reign of George III. The ground, about nine and a half acres in extent, was adjacent to the gardens of the Palace of the Bishop of London.

Among the botanists and travellers who had enriched the Nursery were Mark Catesby<sup>(1)</sup>, Peter Collinson<sup>(2)</sup> and Philip Miller,<sup>(3)</sup> and Bishop Compton's<sup>(4)</sup> collection at Fulham Palace is said to have been sold to it. It would thus appear to have been a place of good standing and reputation.

Young Burchell grew up surrounded by things of beauty: in the

Nursery he beheld some of the most exquisite of exotic flowers, and in his home, judging from the list of its contents sold in 1865, he had every opportunity for cultivating and appreciating the fine arts.

He was educated at a boarding school at Mitcham, and his response to the environment of his childhood can be understood from the following letter written to his father about two months before his fourteenth birthday.

“The Latin usher that came last, seems to express a wish to teach me botany. I should not have known that he understood that science had not I taken it into my head to find in what class the flower of the May tree was: he explained it all to me very clearly. He asked me if I had any books that would do to begin by. I told him there were some at home: he desired me to send for them, therefore will you send or bring me that book with the coloured plates in it, there are two of them. If you have “Linnaeus’s System of Botany”, I had much rather have it than the others:

But be sure you send one of them.

Mitcham,

May 20, 1795.”

Botany was not then on the programme of school subjects, so that usher, unnamed, deserves a word of appreciation from botanists for having encouraged young Burchell’s study.

Except for drawings made during his school days, there is no further account of his botanical studies until 1801. In his *Memoranda Botanica MSS. I*, under the heading of *Ephemeris Botanica*, are found thirty-four entries all of which are descriptions in Latin of exotic plants. These notes were written between 1801-05 at the Kew gardens and elsewhere.

In the records of the Linnean Society of London is the following entry:—

“Mr. Wm. J. Burchell of Fulham well versed in the science of Botany being desirous of having the honour of becoming a Fellow of the Linnean Society, we from our personal knowledge recommend him as likely to become a useful and valuable member.

(Sgd.) A. B. Lambert<sup>(5)</sup>

Charles Koenig<sup>(6)</sup>

R. A. Salisbury<sup>(7)</sup>

W. G. Maton<sup>(8)</sup>

Dec. 7 1802.”

He was proposed in December 1802, and duly elected on 15th February, 1803. Burchell, William Hooker and Lindley were all very young men when they became Fellows of the Linnean Society of London.

In 1804 Burchell went to Wales on a holiday. Drawings done during

the trip, none of which are botanical, are now in the Gubbins Trust Collection, but there is no trace of the Journal which he kept and of which he speaks in later years. Only copies, made by one of his sisters, of two letters written at this time are extant, and from one, written to his Father from Llanely and dated Sept. 18th, 1804, we gather that Matthew Burchell must have been advertising for an assistant or a partner in the Fulham Nursery business, for we read :—

“The applications which you have received are from persons certainly better fitted to assist you than myself, for you must know that I possess a nature which could it be changed for one more suited to my station, would be happier for my family, and in all probability for myself. I will not therefore deceive you by suffering you to suppose that by my having greater advantages from greater exertions I could probably be of more service to you than I have been. You cannot know me if you think that interested motives have any place in my thoughts. Why then do you suppose that my actions and conduct will take a different turn from the offer of emolument.

If you will be content to accept of my services guided by the same well meant intentions as they have always been (notwithstanding they have and maybe, less efficient than you wish), I offer them unconditionally, for to claim a share in those profits to which you only are entitled, and ought fully to enjoy, would be quite repugnant to my feelings. That which is sufficient, I have always had, and more than that I have not earned.”

This letter shows the young man's independent spirit and desire for travel and research, but the last sentence is not quite clear as to whether he meant that he was in employment of some kind, or had a private income.

On 7th August, 1805, Burchell sailed for St. Helena. A deed of partnership had been drawn up between William Balcombe, (<sup>9</sup>) Essex Street, Strand, and William John Burchell of Middlesex, who were to reside in St. Helena and carry on business as merchants.

On the outward voyage Burchell made an excursion up the mountains near Funchal, Madeira. His notes about specimens collected then are in his *Memoranda Botanica* MSS. I, section II which also contains memoranda relating to Portugal, Madeira, Teneriffe and Brazil, all of which he visited in 1825.

One entry is of interest :—

“626. *Chenopodium Ambrosioides*.

1 Hab. in aquosis.

This specimen is the parent of all the plants that now abound in

the island of St. Helena : for on landing there and perceiving a few seeds in the paper which contained this specimen, I carefully sowed them in a garden up the Valley above the Town where three plants grew up and plentifully produced seed which being scattered around, and many growing up the side of the *Run* of water, and thriving luxuriantly, their seeds were washed down into the foss of the Fortified lines, where, and in many other places, I saw in 1815 on my return from the Cape to England this species of plant flourishing in the greatest abundancy being a situation similar to that in which I had originally found it at Madeira, and now therefore become a native wild plant belonging to the Flora Heleniana."

It might be asked whether he was in a serious mood when he wrote these last few words or was critical of the tendency of the time to become very excited over the discovery of specimens of supposedly indigenous plants.

When Sir Joseph Banks <sup>(10)</sup> visited St. Helena in 1771, he wrote : —

" Secluded as this rock is from the rest of the world by seas of immense extent, it is difficult to imagine how anything not originally created in that spot could by any accident arrive at it."

He did not foresee seeds arriving in packets of collectors' specimens !

In Roxburgh's <sup>(11)</sup> List of Plants seen growing on the Island of St. Helena in 1813-14, appears *Chenopodium ambrosioides* Linn. Mexican *Chenopodium*.\*

In Melliss <sup>(12)</sup> there is the following note : " Well known by the name of Tantocury. A most abundant weed in gardens, along roadsides etc. Wild and very common at all altitudes. Hab. Cape of Good Hope."

Burchell's little bit of mischief did not influence Roxburgh or Melliss : they duly marked the plant as an exotic, but Melliss thought its habitat was the Cape of Good Hope. It may have been found there, too, but it would appear that, though Melliss had access to Burchell's material at Kew, he had confined his attention to the Flora Heleniana and missed the book containing the note of confession about the seeds.

" William Burchell, Midshipman "—such was his rating in the " Northumberland," one of the East India Company's merchant ships—arrived at St. Helena in December, 1805, and started work as a merchant in the firm of Balcombe and Burchell.

In March, 1806, he was among the party which escorted Dr. Lichtenstein<sup>(13)</sup> over the Island.

In June, 1806, he wrote to his Father that he was sick owing to the anxiety and fatigue of managing the business, and that he contemplated

\* *Chenopodium ambrosioides*, Linn. Melliss, J. C., *St. Helena*, p. 314, 1875.

dissolving the partnership. In three months' time he held the post of Schoolmaster in a temporary capacity.

On his way to India in 1802 George Annesley, Viscount Valentia, called at St. Helena and, though only an amateur botanist, he was struck with the mixture of vegetation on the Island "where the oak and the bamboo jostle each other."\* He spent some time with the Governor and found there was a botanist appointed by the India Company to look after the public gardens situated behind the Castle, but no attempt had been made to collect indigenous plants. His visit must have stimulated Governor Patton's (14) desire to effect improvements. When Burchell came along the Governor, being favourably disposed towards the young man, recommended to the Court of Directors of the East India Company that he be appointed as manager and superintendent of a new garden situated in the Jamestown Valley and which was to be known as the Botanic Garden.

The post to be created was quite distinct from that held by the official, Mr. Porteus, who was attached to the Castle and Plantation House, the Governor's residence and whose duty it was to keep the Meteorological Journal and present agricultural reports. Burchell was to be appointed as Naturalist to the Company.

The letter from St. Helena written by Governor Patton, "hoping for the approbation of the Honourable Court in favour of the modest and unassuming merits of Mr. Burchell" was dated 31st January, 1807 and crossed in mid-ocean a communication confirming his appointment as Schoolmaster, the post which he had held provisionally from September, 1806.

He was now Schoolmaster and acting provisionally as naturalist. On 31st March, 1807, he did his first planting in the Botanic Garden, and on the 7th April, 1807, he records in his diary his joy when visiting the new garden during "the delightful dewy freshness of the morning". On Sunday, 19th April, is the following entry:—

Before I was up the Governor sent to see me at the Castle. When I went down, he told me that Mr. Drummond of Canton had brought some plants with him intended for the Kew Garden and that he (Gov.) had mentioned our Botanic establishment here and proposed for some to be left at St. Helena. The Governor introduced me to Mr. Drummond who offered to send his plants on shore; I proposed for us all to walk up to the Botanic garden. I explained my plan in laying it out and Mr. Drummond offered some seeds. They all seemed pleased at the prospect of establishing a Botanic garden

\* Valentia, George Annesley, *Viscount: Voyages and Travels*, Vol. 1, p. 14, 1809.

and Mr. Drummond seemed very desirous of promoting it by every means in his power, and said he would write to Mr. Roberts his successor at Canton and Mr. Kerr the gardener at Macaw and to Mr. Duncan at Pinang. We returned to the Castle and after taking some wine, rode to Plantation house where we dined. Mr. Brooke<sup>(15)</sup> told me (as a secret) of his having collected the materials for a History of St. Helena and was very desirous that I should publish the natural history of it at the same time".

The above extract is given in full, for it establishes the fact that to General Patton was due the credit of establishing a Botanic garden, apart from a Public one, and to Burchell for beginning to stock it.

Before Mr. Drummond left, they agreed to land the David Scott's Plant cabin and "exchange the healthiest plants I had on shore for the sickly ones in the *Walmer Castle*, and get on shore the Kew seeds and take a part. He [Drummond] seemed very desirous of promoting my Botanical establishment and I felt much satisfaction for his behaviour to me".

Brooke's book was duly published, but so far as can be ascertained the natural history part did not materialise. Only a few pages are devoted to general remarks about a few plants, fish and the geology of the Island, but these notes may have been supplied by Burchell.

Burchell was happy but for only a few months. General Patton was recalled and in May, 1807, Lieut.-Colonel Lane was appointed Acting-Governor. He visited the Botanic garden in July and signified his intention of altering entirely all plans and arrangements: he was determined to grow vines in it. Burchell writes:—

"I had just been making a trellis for the different twining exotic plants that I had collected and reared: this he said would just do for him to plant vines against, and it appears that he is resolved to undo what the good and excellent Governor Patton strove to accomplish."

The young man was sorely dismayed. His diary gives us a record of events:—

"12th Wednesday August 1807. At  $\frac{1}{2}$  past 11 I received by the orderly a message from Col. Lane for me to meet him at the Botanic garden. We had much conversation therein. I refused to agree to his plan of destroying the Garden by making it into a vineyard, leaving the plants to shift for themselves between the vines. I parted with him under a threat that "he would not forget me".

Holes were dug and in due course vines were planted. This discouraged Burchell but he had some one to whom he could confide his troubles, for Dr. Campbell, botanist from Sumatra, arrived at St. Helena.

In his diary Burchell writes :—

“ 15. Saturday August 1807. This morning Dr. Campbell was introduced to me : I found him a man of much information, and a *scientific* botanist : he told me of his great success in spice plantations at Sumatra which had so superseded the growing of pepper, that the latter was now being neglected. He walked home with me to see some of my botanical books, returned and show'd me some beautiful and valuable drawings of plants : spoke with rapture of the botanical riches of Sumatra and of which he was preparing a large work.”

“ 19th August. Dr. Campbell, who had intended to remain here for a few months on account of his health, having taken a dislike to the place, determined upon returning to India by the *Hawkesbury*. The address he gave me was ‘ Chas. Campbell, Senior Surgeon, Fort-Marlbro’ ”.

“ I wrote to Dr. Roxburgh informing him of Col. Lane's conduct with regard to the Botanic garden. This letter I gave to Mr. Blanchard purser of the *Hawkesbury* who promised when on board to give it to Dr. Campbell who was a particular friend of Dr. Roxburgh.”  
The following letter shows that the young man had benefited from Dr. Campbell's visit :—

“ Island of St. Helena.

24th August, 1807.

Sir,

The accompanying eleven drawings and the enclosed letter were put into my hands by Dr. Campbell who requested me to forward them to you. During his short stay at this place I have felt much pleasure in his acquaintance and doubt not that you will find as much in his correspondence.

From what he has told me I feel persuaded, that a knowledge of the productions of Sumatra must be extremely interesting to the Botanists of Europe, and am inclined to believe that they will not be disappointed in the communications of Dr. Campbell.

Having suddenly resolved upon taking his passage to India, the hurry and immediate sailing of the ship prevented his finding the description of *Marsdenia* to which he has alluded in his letter.

From the expectation which I have of receiving from him the seeds of Sumatra, I venture to hope, (if the East India Company confirm the establishment of a Botanic garden here) that many of them will be naturalized to this island, and thus their ultimately arriving in England will be rendered more certain than if they were carried directly from their native country.



If, from my residence in this part of the world, I could fortunately make myself a useful member of the Linnean Society, I shall esteem it the greatest honor to receive your commands, and am

Sir,

Your most obedient and humble servant

(sgd) WM. J. BURCHELL.

To Dr. James Ed. Smith,  
President  
of the Linnean Society, London".

Meanwhile in the Botanic garden the vines continued to play havoc with the young exotic plants. Burchell however continued collecting, sketching and making notes for his *Flora Heleniana*. He noted that in the garden at Longwood the coffee trees were laden with berries and he was convinced that a coffee plantation would be lucrative. In his diary for October, 1807, he makes several entries about the beauty of the vegetation on Diana's Peak, the highest point in the Island, about 2,700 feet above sea level. Regarding the *Dicksonia*\* he writes :—

"I gazed with delightful surprise on this very remarkable production : I scarcely dared to believe that it could be really a fern. Its robust stem or rather trunk and its height which sometimes equalled twenty feet forbade my considering it as belonging to a tribe, which, instead of overtopping the surrounding trees, is rather contented to rise a little above the grass. Not only does it spread its gigantic leaves over the tops of its neighbours, but it even presumes to assume the form of the towering cocoa-nut. The leaves which spread out horizontally from the top are frequently six feet long and give it exactly the character of the lofty palms. But when you approach and examine its fronds you are surprised to find only the fructification of a humble fern. Its trunk is most frequently clothed with small ferns and mosses : and amongst these, little parasites.

I found an old English acquaintance which I never dreamed of seeing here : this was the elegant little *Trichomanes tunbridgense*. Here we see the interesting whimsicality of Nature in thus so closely associating one of the smallest with certainly the largest fern known to exist."

In 1875 Melliss writes of the *Dicksonia* :

"Its upright stem varies from six to eight inches in diameter and from four to ten feet in height, more or less covered with long bright

\* *Dicksonia arborescens* L'Herit. or *Balanium arborescens*, Hook. & Benth. Syn. Fil., p. 50. Plate 54. 1868.

golden-brown hair, intermixed with parasitical plants, and topped with a splendid crown of bright green fronds, much resembling a miniature palm-tree: it is exceedingly picturesque amongst the other Ferns and native vegetation. Dr. Roxburgh described in 1813 the size of this fern as being twenty feet or more in height and of various thicknesses up to that of a man's body, with fronds (including the stipes) from four to ten feet long. As it does not now—1875—attain that size, it may be considered that like other indigenous plants it is degenerating and gradually dying out.”

Some are still growing [1940] on Diana's Peak and radiating their beauty despite the damage done by goats to the surrounding vegetation.

Of other plants on the Peak, Burchell writes:—

“The appearance of a tree, hitherto unobserved, caught my eye, and from its almost inaccessible situation, I, with difficulty succeeded in obtaining a branch. I guessed it a species of *Phylica*, but the leaves were remarkably large for that Genus. (I have afterwards found that it is called by the natives the olive tree: it is a *Phylica*.)”\*

In October, 1807, he sent off “a small box of mould containing three capsules of *Barringtonia* for Kew Gardens, together with instructions for the management of it.” These seeds were from the tree planted by Captain Cook on his return in 1774 from his second voyage. Cook's Botanist Forster<sup>(16)</sup> named it *Barringtonia speciosa*† in honour of Dr. Barrington<sup>(17)</sup>.

An entry in Burchell's diary, dated November, 1807, is:—

“Barnes<sup>(18)</sup> sent me a specimen of the Boxwood shrub of which I directly made a drawing: it being a great botanical novelty and a curious plant.”

He became enthusiastic about this shrub with its pretty white blossoms placed under the leaves so that they were scarcely visible until the foliage was lifted.

In the album of his drawings now in the Library of the Herbarium, Royal Botanic Gardens, Kew, there are several sketches of this plant and all of them are pencil drawings giving botanical details. The boxwood was *Physalis begonifolia*, Roxb. now *Mellissia begonifolia*, Hk. f. and was extremely rare when Melliss wrote in 1875.

He accompanied Captain Barnes on many occasions. These were happy times, for Barnes had many anecdotes to relate; their food supply was generous, judging from what they carried on one occasion:—“a

\* *Nesiota elliptica* Hook. f.: *Phylica elliptica* Roxb.

† *Barringtonia speciosa* Willd.: *B. racemosa* Roxb.

piece of salt beef : a tongue : a roasted fowl : bottle of Port wine : bottle of Hock : cheese and a tin box (green) to hold plants." It is interesting to note that though Burchell did not produce a book on the Natural History of St. Helena. Barnes did, in 1817, publish a small book which contained Roxburgh's list of plants, indigenous and exotic, found on the Island. To this list were added some things omitted by Roxburgh but which Barnes had observed. It might be presumed he had benefited from Burchell's botanical observation.

In November, 1807, Burchell was looking forward to the arrival of his fiancée, and because of his disappointment over his schemes for the running of the Botanic garden, he contemplated settling on Tristan d'Acunha. A few entries in his diary tell of the accounts given to him by sailors, of the islands in and around Tristan being "covered with trees and verdure down to the water's edge."

His dream of a paradise was shattered, for his young lady during her voyage to St. Helena had transferred her affections to the Captain of the ship, and Burchell was left to pursue his path alone. Though he accompanied Captain Barnes when the latter was surveying the Island, Burchell several times went by himself to Diana's Peak on botanical excursions, for he found that companions and refreshments impeded his pursuits on such occasions. He revelled in the wealth of growth on the Peak, saw the tea shrub ; Lobelias eight feet high, and the Dicksonias ! Among them he did some thinking :—

"14 January 1808. I think Hedwig<sup>(19)</sup> well deserved the honour [referring no doubt to Hedwig having been named "Father of the Cryptogames"] though his name has been given to another Genus. The name of a naturalist should only be given to a genus analogous to those amongst which he most laboured—thus Dillenius<sup>(20)</sup> a moss, Scheuchzer<sup>(21)</sup> a grass, Thunberg<sup>(22)</sup> a Japanese or Cape Plant, Sloane<sup>(23)</sup> a Jamaica plant, Catesby<sup>(1)</sup>, a Carolina Plant, Persoon<sup>(24)</sup> a fungus : Esper<sup>(25)</sup> a Fucus, etc, and we see that the venerated name Linnaeus is with peculiar felicity applied to a Lapland plant which thrives even under the snow for so did his genius first adorn the snowy part of Europe. The Flora Lapponica is one of his best works."

On 28th January, 1808, he enters in his diary :—

"I received a letter from the Revd. Mr. Hesse<sup>(26)</sup> at the Cape, dated 8th January together with a parcel of 150 sorts of seeds, mostly of bulbous plants. This letter pleased me much as it was written in the liberal style of a man of science and refinement. It was in answer to mine of 17th Nov. last."

Later, is another record of mischief making :—

"4th Feb. 1808. In my walk to the Garden I took some seeds of *Xanthium orientale* in my hand, and scattered them as I walked and have no doubt that it will on some future day be reckoned an indigenous St. Helena weed." His conceit of such a happening has not been fulfilled!

A month after receiving seeds from Cape Town, came a basket of succulent plants, 67 species, from Mr. Hesse. About the same time Burchell remarks that he found a Chinese species of *Amaranthus* had a taste of spinach: that *purslane* when boiled gives a good spinach otherwise a very excellent salad, and that he had been given two of the curious Chinese flat peaches and that he had made a drawing of them—No. 625.

In May, 1808, he gathered the first cotton ever grown at St. Helena, and received from Dr. Roxburgh a parcel of 130 sorts of seeds, and prepared plants to be sent to Kew. A few months later there was landed a box of plants from China but, when he went to the Garden to compare what he had received, he

"found that they had been changed! for instead of two boxes directed for me I only received one directed, and not one of the plants corresponded with my list and even those were all dead: they appeared as if they had never had a drop of water all the voyage."

He was not discouraged, for shortly after this he despatched plants to Dr. Roxburgh, and at the request of the new Governor—General Beatson<sup>(27)</sup> who arrived in July, 1808—comments on *Salsola Indica*—sapphire.

"The Governor was going to make the experiment whether it would not produce Barilla and I answered that every maritime plant containing a salt taste would always yield it; had some *Salsola* collected and built a furnace for obtaining Barilla from it."

By this time Burchell was named the East India Company's Naturalist, but the salary attached to the post was to be left to the Company's generosity. He resented this, but after a wordy struggle with the Governor, he accepted the appointment at £250 per annum and was led to believe he would be given a house and some land on which to carry out experiments in the country.

He seemed to be happier and says so in a letter written to Tilesius<sup>(28)</sup> at Leipzig. He hoped to enjoy his work in the Botanic Garden. It may be of interest to state here that when Tilesius met Burchell on St. Helena he presented the young man with his own copy of Esper's illustrated work on "Die Tange—Fuci". This book with Burchell's name and inscription in his own handwriting, "Ab Amico Doctor Tilesius

ad Ino. St. Helena dono datus", is now in the Library of the University of the Witwatersrand.

Governor Beatson had decided to carry out agricultural improvements on the Island. It may be that he looked at things from a wider utilitarian point of view than did Burchell, but certainly from now till 1810, there were several occasions when differences of opinions seemed to offend the sensitive young man. It was a case of an outlook from an economic viewpoint, clashing with that from a scientific botanical one.

Burchell had carefully reared his cotton seed but Beatson's agriculturalist, Porteous, had been able to raise only a few plants from the seed sent. The Naturalist becomes depressed, and once more thinks of Tristan d'Acunha and talks with all the whaler Captains who have seen the Island.

On his way to England, the Chief Judge of Ceylon, Mr. Johnson, called at St. Helena, and on Burchell speaking of his dissatisfaction because of lack of encouragement, the Judge said that Ceylon's Governor would welcome such a botanist as Burchell and offer him every assistance to carry on research. Ceylon, being a King's settlement, would offer more liberal emolument than the East India Company and Burchell was urged to go there.

In the meantime the Barilla experiment proved successful and he writes:—

" . . . therefore everything is Barilla now and the Governor sent me a message that he wished to consult me on the method of burning it."

In June, 1809, his appointment as Naturalist was confirmed from London and his salary was now increased to £300 per annum on condition that he relinquished his post as Schoolmaster. The Governor told him that his duty as Naturalist was of such a general nature, it would be left to his own discretion as to how he should work. This was too vague for him and he became restless.

The retired Auditor-General, Mr. Tolfrey—from Ceylon, visited him. They had interests in common, botany, music and painting, and refreshing as his visit was to Burchell, it left behind it a young man now the possessor of a copy of *Flora Japonica*, but alas, also of a burning urge to get away from the Island, to Ceylon, to anywhere.

The next interesting visitor he had, was an oriental scholar named Ralph who accompanied a Persian *Münshce* (Secretary or Teacher) on his way to England to study English and become a professor of Persian at one of the Colleges. Burchell now dreams that one day his feet may touch the soil of Persia, and therefore begins some "Persian studies".

Again he becomes mischievous : and under the date 31st July, 1809, we read :—

“ In many places I sowed the seeds of various exotics and carefully protected these *wild* gardens with stones, and left them to the chance of nature. At some future day these plants may spread themselves over the neighbouring hills and be mistaken indigenous”.

Well, the young man was wrong : when found they were not labelled indigenous !

A whaler Captain tells him more alluring tales about Tristan, but, meantime, he has to consider the drawing up of his first report as Naturalist. During one of his excursions he collected lichens and made a drawing of the Redwood tree. This drawing differs from that made two years previously, for it gives full details of the flower and on it is a note, “ underlined parts in common with dwarf ebony”. This sketch is at Kew.

His report consisted of twenty-five pages foolscap, and it led to his resigning his post, though the trouble over it did not arise until fully six months after the writing of it.

Meanwhile he was encouraged in his *Wanderlust*.

“ 17th Oct. 1809. After breakfast went on board the Princess Charlotte to see the drawings of Captain Tobin. Portfolio full : some of them were of Otaheite where he had been with Bligh and brought the bread fruit tree to the West Indies and touched at St. Helena where he [Bligh] left some plants (about 14 years ago).”

A letter came from Mr. Hesse at Cape Town. There is no trace of its contents, but it must have been of some importance, for Burchell begins in November, 1809, “ to prepare my Flora Heleniana by making a catalogue of the plants of this island”, and a month later he is busy making drawings for illustrating his catalogue.

In January, 1810, he says : “ Arranged my herbarium according to the System of my Flora Heleniana”, and again on 25th January,

“ I am giving all my attention to complete the materials for my Flora. I feel myself (as it were involuntarily) preparing for my departure.” On 27th January : “ I received a letter from Mr. Hesse dated 10th January this year, in which he said that Lord Caledon—Governor of the Cape of Good Hope—was desirous to know if I would accept of the situation of ‘ Botanist to the Cape Colony’”.

There is no trace of his reply to this.

He was given

“ a cartload of the leaves of the Spanish aloe to make hemp of. But they were very bad and few of them fit for the purpose. I had them first bruised with a mallet and then thrown into the pond.”

He was restive and irritated and a month later he writes :—

“ In conversation I told him (Secretary) that as the Governor had not thought proper to employ me in any useful service, I was resolved not to receive [accept] any more salary till he *did*. I argued that he [Governor] had left me in the lurch and that I was now so completely disgusted with St. Helena that I did not believe I should ever receive [accept] any more of the Company's money.”

He was very independent ; his living cost him £500 per annum : his salary was £300 and he was refusing to accept even that amount !

Burchell was now determined to leave St. Helena, and on 10th April, 1810, he wrote to Mr. Hesse that he had resigned and was now busying himself with preparing his herbarium to send home ; and in June, when answering a letter from Mr. Hesse, he said that he was certainly coming to the Cape as soon as the *Cirencester* arrived.

The *Camperdown* sailed for Rio de Janeiro from St. Helena on the 12th July, 1810, and Burchell remarks that he was very vexed that he was not ready to take his passage in her. The *Cirencester* arrived but he found himself unable to sail, for his business affairs were not in order and trouble had arisen between him and the Church authorities regarding rent due for the schoolhouse.

Mr. Alexander, Colonial Secretary at the Cape, when on his way to England, called on Burchell and, hearing of his intention to visit South Africa, gave him letters of introduction to people in Cape Town. To Cape Town, in the American brig *Harriet*, Burchell sailed on 16th October, 1810, taking with him a minimum of personal belongings, but all his books and boxes of plants for Mr. Alexander and Mr. Hesse.

In his diary he writes :—

“ Viewing my departure I confess I quit the island of St. Helena with very great reluctance : yet I must not remain. I am murdering my valuable time at a place where my hands are tied up from being useful to community.”

Two days before leaving, he

“ went to the Botanic Garden with Dr. Baildon, the Medical Superintendent, to give him a list of the names of the most striking plants which he wished to learn, as he meant to propose to the Governor that as the Botanic Garden was now without a superintendent, he was willing to take charge.

The Malay Walnut was the first tree I planted there and is now a most beautiful spreading tree about fourteen feet high : the only one on the Island. I begged Baildon to protect it and prevent it being destroyed as I wished it to flourish as a memorial of me at St. Helena.”

The tree did flourish and there is a record of its being in the Botanic Garden in 1882, but when about 1900 during the Boer War, the Imperial Government started building an enlargement to the Barracks which adjoined the Botanic Garden, all the trees were cut down.

The Botanic Garden did not flourish as long as the tree, for in 1813 Dr. Andrew Berry when advising General Beatson to cultivate the Kew Nopal proposed :—

“ a portion of the Garden be devoted to the growth of the Cactus of most value for rearing the fine cochineal, as its object as a Botanic Garden has been frustrated”.

General Beatson's *Tracts*\* does not mention Burchell but there is a reference to Captain Barnes collecting Lichens. From Burchell's diary it can be proved that he was with Barnes when that collecting was done, and from the notes at Kew it is learnt that the originals went to Mr. Dawson Turner, the authority on Fuci, and that they were never returned to the owner.

Burchell's wish to be remembered in connection with St. Helena was carried out when in 1866 (Sir) J. D. Hooker (29) spoke on “ Insular Floras ” to the meeting held at Nottingham by the British Association for the Advancement of Science. Melliss records the part referring to St. Helena. Hooker had access to the Burchell material which arrived at Kew in 1865 and he collated Burchell's material with Roxburgh's. To several of the indigenous plants Burchell's name was affixed.

*Lichtensteinia Burchellii*, Hook. f., the dwarf angelica (though now very scarce), growing on Diana's Peak reminds botanists of two great travellers. Melliss gives a full description of the Flora of the Island, and though, since he wrote in 1875, the indigenous plants have become more scarce, Kew possesses Burchell's wonderfully well-preserved Herbarium and his drawings about one of which Melliss wrote : “ It is fortunate that Dr. Burchell made a drawing of this plant ; [Ebony] and with the kind permission of Dr. Hooker it has been copied” †

Burchell was once more on the Island in 1815, and of that visit something will be said anon. In the meantime he looks forward to his wanderings in South Africa.

\* Beatson, Alexander : *Tracts relative to the Island of St. Helena.* London, 1816.

† Melliss, J. C. : *St. Helena.* London, p. 229, 1875.



## BIOGRAPHICAL NOTES.

- (1) CATESBY, MARK (1679-1749), naturalist; voyaged to the New World; in 1719 attracted the attention of Sir Hans Sloane, who acquired several of his specimens. F.R.S. in 1733.
- (2) COLLINSON, PETER (1694-1768) had a large business connection with America. F.R.S. in 1728. Formed a botanic garden at Mill Hill, London. He established a good system of botanical exchanges with the colonies.
- (3) MILLER, PHILIP (1691-1771), florist in St. George's Fields; was appointed foreman of the Chelsea Garden when Sloane granted it to the Apothecaries' Company; corresponded with Linnaeus, who visited the garden in 1736. Left a large herbarium which was purchased by Banks and is now in Brit. Museum. His chief work was *The Gardener's and Florist's Dictionary*.
- (4) COMPTON, HENRY (1632-1713), Bishop of London, has some claim to rank as a botanist, for he planted his grounds at Fulham with "a greater variety of curious exotic plants and trees than had at the time been collected in any garden in England." He obtained most of his rare plants from correspondents in North America.
- (5) LAMBERT, ALYMER BOURKE (1761-1842), appointed in 1796 one of the four Vice-Presidents of the Linnean Society of London. He was probably the last to wear the three-cornered official cocked hat of the Society.
- (6) KOENIG, CHARLES (1774-1851) came to England in 1800 to arrange the collections of Queen Charlotte; afterwards assistant to Banks' librarian, Dryander. In 1807 became Assistant Keeper and in 1813 Keeper of the Nat. Hist. Dept. in Brit. Museum; finally took charge of the Mineralogical Department.
- (7) SALISBURY, RICHARD ANTHONY (1761-1829) studied Botany under Prof. Hope in Edinburgh. In 1809 became Hon. Sec. of Hort. Soc. London; was dismissed; offered to make Alphonse de Candolle his heir. Offer was declined, and he then approached J. E. Gray, who refused it. While Burchell was in Brazil, Salisbury died and left him his collections.
- (8) MATON, WILLIAM GEORGE (1774-1835), elected F.L.S. in 1794; was founder of the Linn. Society Club.
- (9) BALCOMBE, WILLIAM (1779-1829), merchant and superintendent of Public sales at St. Helena under the East India Company; became purveyor to Longwood when Napoleon resided there; was friendly with the Emperor and had to leave the Island in 1818. He ultimately became Colonial Treasurer of New South Wales.
- (10) BANKS, SIR JOSEPH (1743-1820), President of the Royal Society, traveller and patron of science. Went in the *Endeavour* with Capt. Cook. He bequeathed his library and herbarium to Robert Brown, at whose death it went to Brit. Museum. Employed Francis Bauer as draughtsman. As scientific adviser to George III, he also arranged for collectors to gather plants for Kew from abroad.
- (11) ROXBURGH, WILLIAM (1751-1815) was assistant surgeon on the East India Company's Estate at Madras; made large collections of plants; in 1787 lost most of these in a flood, but Banks, in 1794, published 300 of his drawings. Roxburgh was superintendent of Calcutta Botanic Gardens. F.L.S. in 1799; F.Soc.Arts; F.R.S.Edin. In 1813 retired to the Cape, then to St. Helena. MSS. of *Flora Indica* in Brit. Museum.
- (12) MELLIS, JOHN CHARLES ( ? ), A.I.C.E.; F.G.S.; Commissioner of crown property; surveyor and engineer of the Colony of St. Helena; wrote authoritative work on the Island, a physical, topographical, historical description including geology, fauna, flora and meteorology.
- (13) LICHTENSTEIN, MARTIN KARL HEINRICH (1780-1857) studied medicine at Jena. In 1801 appointed medical attendant to the household of General Janssens at Cape of Good Hope. In 1806 returned to Germany; 1811 Professor of Zoology at Berlin and in 1813 Director of Zoological Museum.
- (14) PATTON, ROBERT (1742-1812) served in East India Company under Warren Hastings. Governor of St. Helena 1802-07; established telephone system on Island, wrote *Principles of Asiatic Monarchies*, 1803.
- (15) BROOKE, THOMAS HENRY (1774-1849), Secretary and Member of the Council of St. Helena. During Napoleonic period was Secretary to the Council and

- was responsible for remarkable clearness in style of minutes. Wrote *History of St. Helena*, 1st edition 1808, second edition 1824.
- (16) FORSTER, GEORGE (1754-1794) assisted his father as naturalist in Capt. Cook's second voyage; made F.R.S. for his share in describing the flora of the South Seas (1775). Sparrman worked with him.
- (17) BARRINGTON, DAINES (1727-1800), lawyer, antiquary and naturalist; said to have induced White to write his *Natural History of Selborne*.
- (18) BARNES, JOHN, was surveyor and engineer on Island of St. Helena. Published, in 1817, an informative book, *A Tour through the Island of St. Helena*, which contained Roxburgh's catalogue of the Flora.
- (19) HEDWIG, JOHANN (1730-1799) celebrated German botanist; established the study of cryptogamia on a new basis.
- (20) DILLENIUS, JOHANN JAKOB (1681-1747), native of Darmstadt; became first occupant of Sherardian Chair of Botany at Oxford. Linnaeus visited him in 1736. Along with John Martyn, Dillenius founded The Botanical Society in London, 1721.
- (21) SCHEUCHZER, JEAN (1684-1738), Swiss botanist. On his brother's death in 1733, carried on the work of that naturalist; work *Agrostographica* published in Zurich, 1719.
- (22) THUNBERG, PETER (1743-1828), "Father of Cape Botany"—see *Journal of S.A. Botany*, 1939, for his Life and Work.
- (23) SLOANE, SIR HANS (1660-1753) studied Botany under Magnal and Tournefort. Elected F.R.S. 1685. Sec. Royal Soc. 1693-1712. Founded in 1721 for the Society of Apothecaries, the botanic garden at Chelsea. President Royal Society 1727-1741.
- (24) PERSOON, CHRISTIEN HENRI (1770-1836) born at the Cape of Good Hope. Went to Europe when 12 years of age; graduated M.D. at Göttingen. 1802 went to Paris and devoted himself to botany. He sold his herbarium to Govt. of Holland from whom he received a pension.
- (25) ESPEr, FREDERICK JOHANN (1732-1781), German philosopher and naturalist. Studied theology. Wrote several works on natural history, among them being, *Adventures, true and wonderful, of many travellers*.
- (26) HESSE, REV. C. H. F., arrived at Cape Town Sept. 1800 as minister of the Lutheran congregation, Strand St.; well known for his classical and intellectual endowments and particularly for his attachment to botany.
- (27) BEATSON, ALEXANDER (1759-1833), Governor of St. Helena 1808-1813; military career was carried out in India; was a keen agriculturist; introduced the plough and Chinese labour in St. Helena; wrote *Tracts Relative to the Island of St. Helena*. 1816.
- (28) TILESIIUS, WILLIAM GOTTFRIED (1769-1857) studied medicine at Leipzig; he became "Hofrath" in the Russian service; travelled round the world. By the Czar of Russia he was named "Tilesius v. Tileman." Lived in Leipzig, Göttingen, Mülhausen, Dresden.
- (29) HOOKER, JOSEPH DALTON (1817-1911), naturalist in Ross's Antarctic expedition 1839-43; travelled in India, Syria; worked with Bentham to produce *Genera Plantarum*; was an authority on Insular Floras. Director of Botanic Gardens, Kew, from 1865. Received many honours from English and foreign scientific societies.
- (30) TURNER, DAWSON (1775-1858), banker, author, botanist and archaeologist; published important illustrated work on *Natural History of Fuci*, 1808-19.



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"*Plantago robusta*, Rox. A small shrubby native plant, now very scarce, but still to be found growing in the crevices of rocks in the hottest parts of the Island. Blossoms in July and August." Melliss, J. C., *St. Helena*, p. 296. 1875.



Drawing : Wm. J. Burchell

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"*Psoralea pinnata*, Linn. The native "Gobbly Gheer"—flowers once a year, at Christmas time: is used for floral decorations and is to the St. Helenian what Holly and Mistletoe are to the people of England. It grows wild to a slight tree, about 10 feet in height and is very common. Doubtless this plant existed in the Island on its discovery." Melliss, J. C., *St. Helena*, p. 261. 1875.



† *Psoralea pinnata* Gobbly Gheer.

4 *Aquar.*

‡ *Physalis edulis* Bilberry.

Drawing: Wm. J. Burchell.

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The Native Ebony of St. Helena (*Melhania melanoxyylon* Ait.; *Trochetia melanoxyylon* Benth. and Hook. f.).

In 1813 Dr. Roxburgh saw a few trees of this species about 10 ft. high. By 1865 they were extinct, having been used as fuel.

(Drawings by Burchell, reproduced from J. C. Melliss, "St. Helena". Plate 29.)